REMARKS

By a final rejection dated January 8, 2004 in the file of this application, the Examiner in charge of the application finally rejected all the subject matter of this application. By this response, reconsideration of the merits of this rejection is respectfully requested. In addition, a Request for Continued Examination (RCE) is also submitted herewith.

In the Office Action, the Examiner maintains a single rejection against the claims of this application. The Examiner contends that the subject matter of the claims is not enabled and rejects the claims under 35 U.S.C. §112, first paragraph. The applicants strenuously disagrees.

The applicants and the Examiner both agree that there is evidence that demonstrates that ABC1 is responsible for transport of cholesterol across cell membranes. The Examiner and the applicants agree that sulfonylurea compounds are examples ABC1 inhibitors. The applicants and the Examiner also agree that the existence of the WHAM chickens demonstrates that deficiencies in the ABC1 transporter gene will result in changes in cholesterol uptake. The Examiner nevertheless contends that the applicants' data fails to demonstrate that the claimed invention actually works.

The Examiner notes that ABC is responsible for cholesterol uptake from the diet and excretion of cholesterol, a process by which cholesterol is transported for excretion by the liver. The applicants understand that ABC1 is also responsible for cholesterol excretion in the liver. It is precisely this pathway that the applicants' invention is intended to take advantage of.

Note that the applicants' invention is not to inhibit the action of ABC1 in the body generally. This invention is not intended to create individuals with Tangier disease or who have conditions similar to the WHAM chickens. The concept in this invention is to inhibit ABC1 activity principally in the intestinal cells. Thus the invention specifically recites that the inhibition of ABC1 activity is done only in the intestine, and it is for that reason that the drug is delivered orally and not intravenously. The Examiner is correct that if ABC1 inhibitor was delivered intravenously that it might have some of the effects that the Examiner speculates would occur, notably the inhibition of cholesterol secretion from the liver. However, the method described here relates specifically to inhibition of cholesterol transport only in the intestinal tract. The purpose is not only to reduce uptake of dietary cholesterol, but also to very specifically reduce uptake of cholesterol secreted by the liver, which is excreted through the intestinal tract.

Note again that it is specifically recited in the claims that the inhibition of cholesterol transport occurs in intestinal cells. The claims presented have been modified to make it inescapably clear that what is intended is selective inhibition of ABC1 activity in the intestine. It is this inhibition which will result in the results the applicants report. No inhibition of ABC1 activity in the liver or in other parts of the body is contemplated or claimed in the claimed invention.

As such, the Examiner's statements are inapplicable. General blockage of ABC1 activity in the body is not required or desirable. Note a discussion of the very specific targeting of inhibition of ABC1 activity which is contained in the specification, page 6, beginning at line 19 and continuing to line 33.

Note that several mechanisms are provided for inhibiting ABC1 activity selectively in the intestinal tract. There are genetic means and chemical means contemplated and enabled by the specification. It is further described that the ABC1 inhibitors could be antibodies, described in the specification on page 8. All of these agents are intended to be selectively applicable to the ABC1 activity in the intestine and not to circulate generally in the blood stream. That is the reason that oral activity is specifically recited in Claim 3, and the selective application of the inhibitor to the intestinal cells is recited in the other claims.

Accordingly, the applicants believe that the Examiner's rejection is misplaced and should be reconsidered. It is believed the present invention is both novel and unobvious and a reconsideration of the merits of the claims of this application is appropriate.

A separate petition for extension of time for one month is submitted herewith so that this response will be considered as timely filed. Please charge the fee to Deposit Account No. 17-0055.

Respectfully submitted,

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